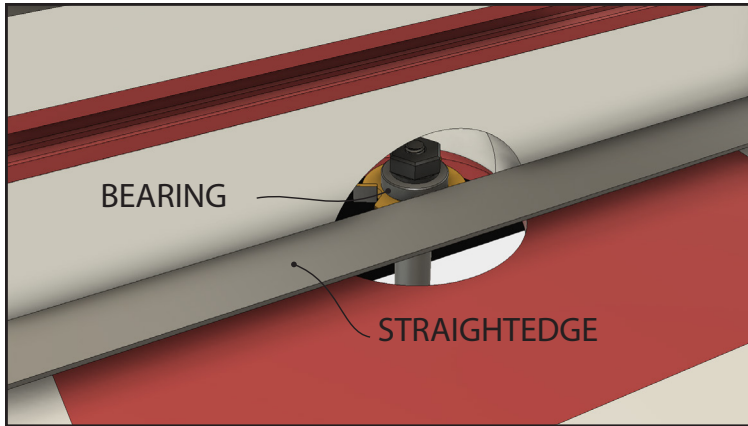


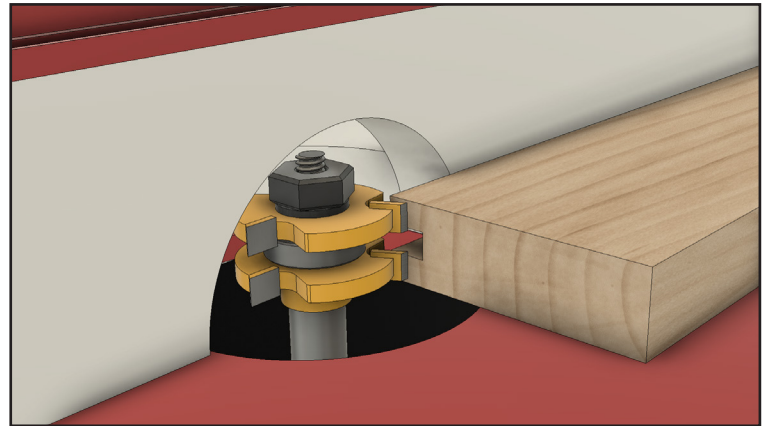
Cut tongue-and-groove joints in $\frac{3}{4}$ " thick stock for flooring, wall panels or frame-and-panel doors with this matched set of router bits. Follow these instructions for a perfect fit.

Step 1: Install the slot-cutter in your router.



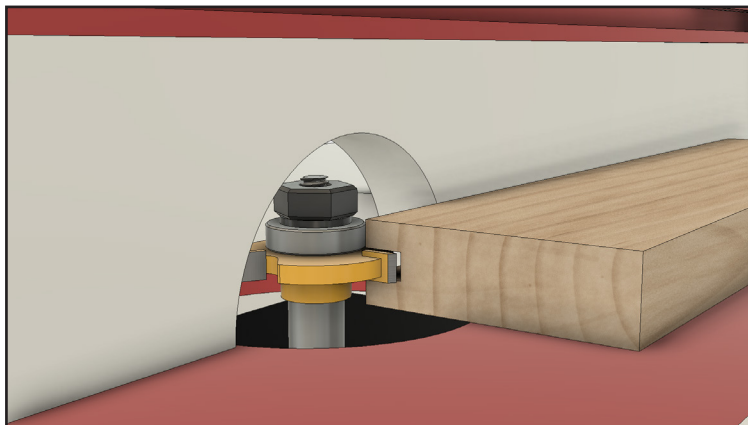
To get the best results, cut the slot first. You can adjust the thickness of the tongue to match. Put the slot cutter into your router and adjust the bit height so that you'll end up with a groove that's centered in the thickness of the stock. Use a router table for maximum control. The fence should be flush with the bit's bearing.

Step 3: Install the tongue-cutting bit.



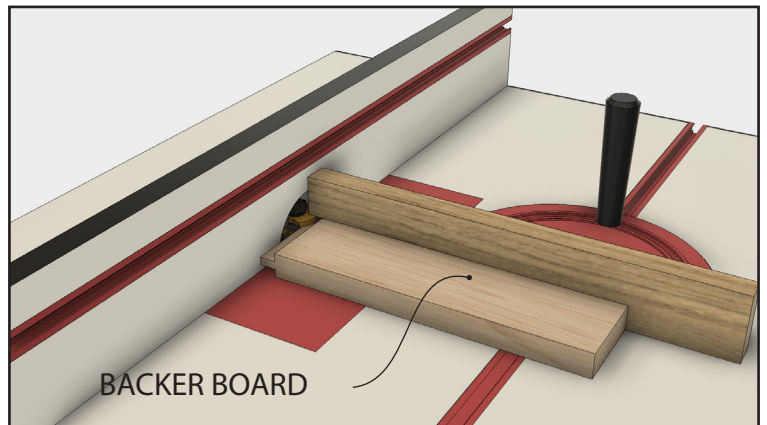
Now remove the slot-cutter and replace it with the tongue-cutting bit. Use one of the pieces you routed with the slot-cutter to set the bit height. Place the stock next to the bit and adjust the height until the two cutters appear to be evenly spaced on either side of the groove.

Step 2: Route the groove.



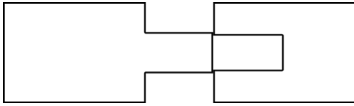
Run your stock face down through the router, feeding the work at a steady rate for a smooth, crisp cut.

Step 4: Make a test cut.



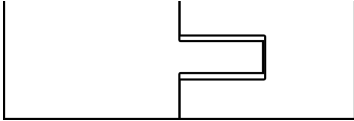
Use a piece of $\frac{3}{4}$ " thick scrap material to make a test cut. Route the material face down, and then test the fit with one of the grooved pieces you've already cut. If the joint fits, you can route the tongue in all of your stock.

Step 5: Adjust the tongue thickness.



Tongue too thick

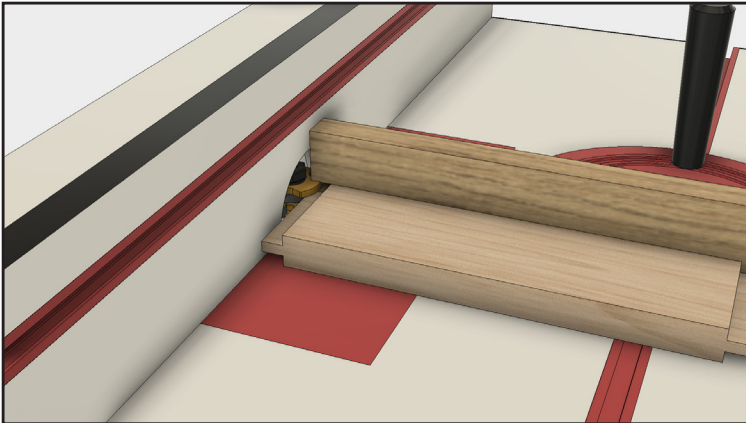
It's possible that your tongue will be either too thin or too thick.



Tongue too thin

In either case, you can adjust the tongue thickness to get a snug fit. Remove shims if the tongue is too tight, or add shims if it's too thin. Then adjust the bit height. Just remember: You must have at least one shim on either side of the bearing to allow it to spin freely.

Step 6: Route the tongue.



When the tongue-cutter is set correctly, route your stock.

Shimming Instructions

You can adjust the tongue cutter for a perfect-fitting joint. Remove the nut from the top of the bit, along with the washer, top blade and bearing. Then insert shims below and above the bearing to get the correct tongue thickness. Always leave at least one shim above and below the bearing.

